

ASSESSMENT IMPROVEMENTS INVENTORY

MAY 1, 2017 VERSION

WQ Criterion/ Topic of Revision	Work Description	Priority	Scope	Existing Method?	Methodology Revision Status	Assignment (assumed EPA will review all & Steering Committee approve any revisions)	Public Engagement 1-None needed outside comment period 2-Inform/Affirm approach 3-Needs Sci/Tech PR
Conventional pollutants							
Dissolved Oxygen	<ul style="list-style-type: none">Excise standards interpretation portion (to be stand-alone WQS documentation)Incorporate clarifications from WQS program once resolved with EPAClarify assessment applies two part criteria for spawning and cold water (minimum and % saturation)Reference standards DO WQS procedures/implementation info and georeferenced layers for criteria determination	High. EPA approval of assessment depends on concurrence on standard implementation and correct criteria application	In scope (affirmed by Steering Cmte)	Existing	Underway, minimal work remaining	Primary: James M. Consult: Debra S. Review: Debra, Karla	1—None needed outside public comment period
Bacteria	<ul style="list-style-type: none">Update consistent with 2016 criteria revisions including maps depicting recreation and shellfish harvesting uses	High, must do. Assessment must apply currently approved standards.	In scope (affirmed by Steering Cmte)	Existing	Criteria approval pending. Method revisions underway	Primary: James M. Consult: Aron B Review: Debra, Karla	1—None needed outside public comment period

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Biocriteria	Methodology work: <ul style="list-style-type: none"> Refine assessment categories to Cat 5, Cat 2 and restrict Cat 3 use to those with potential concern Update data quality requirements for macroinvertebrate data and incorporate current knowledge of model limitations Refine methods for duplicates, seasonal replicates, multiple year data sets Allow submission of third party macroinvertebrate data Allow other approaches and metrics if submitted with sufficient supporting information Update de-listing requirements 	High to address past public and EPA critiques of 2010 methodology	In scope (affirmed by Steering Cmte)	Existing	Methodology work: Completed.	Primary: Shannon H Consult: Karla U. Review: Project Team	2—Inform/Affirm approach
Nuisance Phytoplankton Growth	<ul style="list-style-type: none"> Chlorophyll-a has a numeric limit used for current Cat. 5. Need to include as a chapter in current methodology document if in scope. Remove references to season when listing for consistency with standard Need to clarify procedure for how to implement the optional actions outlined in section 340-041-0019-2(a) in case of exceedance? 	Need to identify how DEQ will consistently apply/use for available data		Existing for Chlor-a	Minimum updates completed. Further clarification may be needed.	Primary: Karla U. Consult: NA Review:	1—None needed outside comment period
Total Dissolved Solids	<ul style="list-style-type: none"> No current methodology. Data not routinely assessed. 	Low priority. Likely would not affect EPA approval.	Steering Cmte affirmed: Out of scope	No	Not initiated	NA	NA
Total Dissolved Gas	<ul style="list-style-type: none"> Unlikely to have data for assessment. Potential clarification that specific Main Stem Columbia River standards (340-041-0104(3)) are Commission actions rather than relevant to the assessment. 	Low priority. Likely would not affect EPA approval.	Steering Cmte affirmed: Out of scope	No	Not initiated	NA	NA

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Temperature	<ul style="list-style-type: none"> Minor revisions--No detailed changes to methodology required Confirm citation of standard up to date Cite standards memo and clarify calculation and application of 7-day average maximum temperature criteria Reference standards mapping for criteria determination 	No specific methodology revisions requested by EPA.	Identified minor revisions in scope. (affirmed by Steering Cmte)	Existing	Minimal, Not initiated	Primary: James M Consult: Debra Review: Debra, Karla	1—None needed outside public comment period
Turbidity	<ul style="list-style-type: none"> No detailed changes to methodology required Not aware of new data sets and information showing impacts to drinking water system 	Low	Steering Cmte affirmed: Out of scope	Existing	Not initiated/Not anticipated to be needed	NA	NA
Narrative Standards							
HABs method implementing aquatic weeds, nuisance algae narrative	<ul style="list-style-type: none"> Evaluate whether revisions are needed based on how OHA issues advisories (look at frequency of advisories on a waterbody? Duration of advisory before lifted?) 		Steering Cmte Decision: In scope.	Existing	Not initiated	Primary: Lesley? Consult: Aaron B., Karla U If revised, reviewed by: Project team	2—Inform/Affirm approach
Aquatic weeds, nuisance algae, nutrients	<ul style="list-style-type: none"> Narrative Criteria on Fungi, algae growths No detailed changes to methodology needed, accounts for typical data and information assessed Potential to develop methodology using benchmarks for nutrient pollutants and corroborating evidence 	EPA has not previously pressed Oregon since other pollutants are listed using specific pollutant protocols	Steering Cmte affirmed: Out of scope	No	Not initiated.	NA	NA
Sediment	<ul style="list-style-type: none"> Narrative criteria on bottom sludge, organic and inorganic deposits A significant cause of impaired waters Sedimentation benchmark/methodology development significant work load 	EPA would like to see progress building from work funded in 2009	Steering Cmte affirmed: Out of scope	No	Efforts suspended in 2009	NA	NA

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Toxics Narrative	<ul style="list-style-type: none"> Previous recommendations from commenters, EPA to evaluate the use of one or more of the following approaches to evaluate narrative criterion: <ul style="list-style-type: none"> Fish tissue data Sediment data Benchmark data from other sources where no numeric criteria exist Currently use OHA fish consumption advisories 		Steering Cmte Decision: Out of scope	Partial—Existing for OHA fish consumption advisories	Not initiated	NA	NA
Taste, odors, other conditions (Fecal coliform, Turbidity)	<ul style="list-style-type: none"> General narrative that could be used if DEQ acquires data showing drinking water or consumable fish impacts Likely methods will be specific to cases and information sets 	Dependent on data received—not anticipating specific data	Steering Cmte affirmed: Out of scope	No	Not initiated	NA	NA
Toxics, Numeric Criteria							
Arsenic-- Human Health	<ul style="list-style-type: none"> Review Oregon specific data and review conversion factor for total arsenic to inorganic arsenic 	High	Steering Cmte Decision: In scope.	Existing	Analysis of DEQ data initiated	Primary: Becky A. Consult: Debra, Lesley M If revised, review by: Debra, Project Team	2—Inform/Affirm Approach
Cadmium— Aquatic Life	<ul style="list-style-type: none"> Updates needed to incorporated aquatic life acute criteria federally promulgated in 40 CFR 131 Update coefficients in hardness-based equation for acute dissolved cadmium; Include default hardness values by ecoregion 	High, DEQ must apply currently applicable and approved standards. Low effort to complete.	In scope. (affirmed by Steering Cmte)	Existing	Not initiated.	Primary: James M. Consult: Debra Review: Debra, Karla	1—None needed outside public comment period

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Chromium— Aquatic Life	<ul style="list-style-type: none"> Evaluate use of conversion factor for total chromium to Chromium VI for aquatic life criteria 	High	Steering Cmte Decision: In scope.	Existing	Not initiated	Primary: Becky A. Consult: Debra, Lesley If revised, review by: Debra, Project Team	2—Inform/Affirm Approach
Copper— Aquatic Life	<ul style="list-style-type: none"> Revise methods to apply copper BLM data for assessment, including identifying if methods need to differ from other toxics due to data requirements 	High, DEQ must apply currently applicable and approved standards.	In scope. (affirmed by Steering Cmte)	Existing	Underway.	Primary: Becky A Consult: James M Review: Debra, Karla	??TBD—may be either 2 or 3
Human Health Criteria	<ul style="list-style-type: none"> Clarify both human health and aquatic life use support are evaluated independently by using both human health criteria (Table 40) and aquatic life criteria (Table 30). 	High priority.	In scope. (affirmed by Steering Cmte)	Existing	General methodology updates from Toxics re-do completed	Primary: Karla U. Consult: Debra S Review:	1—None needed outside public comment period
Aquatic Life Criteria	<ul style="list-style-type: none"> See Toxic re-do methodology for updates and confirm all metals criteria conversion factors noted by citing standards. Update with duration and frequency components for aquatic life criteria application Minimum number of samples required to assign Cat. 5, 3, or 2. How apply 1 in 3 year frequency Update references to new tables and endnotes 	High	In scope. (affirmed by Steering Cmte)	Existing	General methodology updates from Toxics re-do underway	Primary: Karla U. Consult: Debra S Review:	1—None needed outside public comment period

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Assessing total metals data for compliance with dissolved criteria	<ul style="list-style-type: none"> Update with methodology developed for 2012 Toxics re-do in 2014 to include approved aquatic life criteria with appropriate fractions, conversion factors from Table 30 Evaluate how/when to use total data in lieu of or in addition to dissolved data 	High. DEQ must apply currently applicable and approved standards.	In scope. (affirmed by Steering Cmte)	Existing	General methodology updates from Toxics re-do underway	Primary: Becky A. Consult: James M., Lesley M. If revised, review by: Debra S, Project Team	2—Inform/Affirm approach
Default hardness for metals criteria	<ul style="list-style-type: none"> Current methodology specifies using default hardness of 25 mg/L when sample specific hardness data not available following EPA guidance—consult with standards group to determine whether revision needed (would be broader WQS policy than just for IR) Evaluate use of other Ecoregional hardness defaults (federal cadmium rule specifies default by level 3 Ecoregion—OR WQS regulations does not otherwise specify defaults; federal criteria specifies use of min. default of 25 mg/L) 	High priority, low effort. EPA would like to see defaults clarified.	In scope.	Existing	Alternative default analysis not initiated. Some elements available from other standards work.	Primary: James M. Consult: Debra S. If revised, review by: Debra, Project Team	2—Inform/Affirm approach
Use of guidance values in assessment	<ul style="list-style-type: none"> Address if/when the aquatic life guidance values for toxic pollutants (Table 31) will be used Haven't used in recent assessments—unclear past practice 	Not required for EPA approval. DEQ may want to clarify how it uses guidance values.	Steering Cmte Decision: Out of scope	No	Not initiated.	NA	NA
Cross-Parameter Assessment Methods and Policies							
Overwhelming evidence	<ul style="list-style-type: none"> Evaluate use of methods/definition to list when evidence is “overwhelming” Based on evaluation could produce procedures for evaluating and classifying evidence as overwhelming. 	High, although not required for EPA approval.	Steering Cmte Decision: In scope.	No		Primary: Becky A. Consult: Karla U If revised, review by: Project Team	2—Inform/Affirm approach

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Conflicting evidence	<ul style="list-style-type: none"> Evaluate procedures to address situations where have conflicting evidence (e.g., data indicates attainment against criteria with measured inputs and indicates exceedance when defaults used) 	High, although not required for EPA approval.	Steering Cmte Decision: In scope.	No		Primary: Becky A. Consult: Karla U If revised, review by: Project Team	2—Inform/Affirm approach
Seasonal criteria assessment	<ul style="list-style-type: none"> Remove protocols to apply seasonal time periods for data evaluation when no time periods or seasons are specified in the water quality parameter standard. Water quality standards with time periods are: spawning criteria for temperature and dissolved oxygen Correction to past assessments done for seasons for multiple parameters 	High. EPA requires for next assessment.	In scope. (affirmed by Steering Cmte)	Existing	Methodology revisions completed.	Primary: Karla U. Consult: NA Review: Project Team	2—Inform/Affirm approach
Exceedance frequency for large data sets	<ul style="list-style-type: none"> Assessment must reflect the frequency and duration explicit in the standards Develop more robust protocol to apply duration and frequency components for aquatic life toxics to data sets Binomial approach used in some states Evaluate use of exceedance frequency in human health criteria 	High, although not required by EPA but DEQ may wish to update methods.	Steering Cmte Decision: In scope.	No	Initial discussion with EPA; no additional progress Revisions may complement or build on Aquatic Life Criteria updates, above.	Primary: Becky A. Consult: James M., Karla U. If revised, review by: Project Team	3—Needs Sci/Tech Review
Assessment of long-term data sets	<ul style="list-style-type: none"> Assessment of multiple years or long term sets of data (5-10 years) Weighting of data or trend analysis to determine current attainment (may relate to item above) Revisions may complement or build on exceedance frequency for large data sets and Aquatic Life Criteria updates, above. 	High, although not required by EPA for approval of next assessment.	Steering Cmte Decision: In scope.	No	Not initiated.	Primary: Becky A Consult: James M, Karla U If revised, review by: Project Team	3—Needs Sci/Tech Review

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Delisting procedures	<ul style="list-style-type: none"> Evaluate adding specificity regarding quantity and quality of data needed to remove water bodies from impaired list Consider weighting more recent samples as in biocriteria methodology 	Not required by EPA for approval of next assessment.	Steering Cmte Decision: In scope.	Partial-- General statement s	Initiated for biocriteria only	Primary: Becky A Consult: Karla U If revised, review by: Project Team	2—Inform/Affirm approach
Listings for violation of antidegradation policy	<ul style="list-style-type: none"> Comments received in past assessment cycle have been addressed in response to comments that antidegradation is primarily addressed in permitting program Review whether there is a basis for initiating 303(d) categorization for waters violating the antidegradation policy No assessment method currently in place. 	Not required for approval by EPA.	Steering Cmte affirmed: Out of scope	No	Not initiated.	NA	NA
Identify estuarine waters	<ul style="list-style-type: none"> Update methodology to reflect how to apply relevant criteria for freshwater/saltwater for aquatic life as appropriate Update methodology to use beneficial use support of drinking water or fish consumption to determine which human health criteria to apply (Estuaries not designated for drinking water uses.) Bacteria standards addressed separately (see above) 	High priority. DEQ should complete for consistency in standards implementation.	In scope	Existing	Methodology work: Initiated	Primary: James M. Consult: Debra S. Review: Project Team	2—Inform/Affirm approach
Link Beneficial Uses with WQ criteria	<ul style="list-style-type: none"> Beneficial use support determined by analyzing appropriate parameter Will be necessary for ATTAINS reporting 	High—Must do	In scope. (affirmed by Steering Cmte)	No	Summary of approach in methodology initiated	Primary: Karla U. Consult: NA Review: Project Team	2—Inform/Affirm approach

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Assessment Unit Framework	<ul style="list-style-type: none">Aligning segmentation with ATTAINS framework and to reflect beneficial uses	High— Must do	In scope. (affirmed by Steering Cmte)	Existing	In progress	Primary: Karla U Consult: Task Team Review: Project Team	2— Inform/Affirm approach

Reference Documents:

http://deqsps/regdiv/wq/sa/integratedR/IRimprove/Shared%20Documents/OAR340Div41_Review_0630_NotesPriorityPoll.xlsx

http://deqsps/regdiv/wq/sa/integratedR/IRimprove/Shared%20Documents/IR%20Improvements%20Project%20Status_1.6.17.xlsx